IN THE UNITED STATES DISTRICT COURT FOR THE

NORTHERN DISTRICT OF OKLAHOMA

W. A. DREW EDMONDSON, in his capacity as ATTORNEY GENERAL OF THE STATE OF OKLAHOMA and OKLAHOMA SECRETARY OF THE ENVIRONMENT C. MILES TOLBERT, in his capacity as the TRUSTEE FOR NATURAL RESOURCES FOR THE STATE OF OKLAHOMA,	)	
Plaintiff,	)	
vs.	)	4:05-CV-00329-TCK-SAJ
TYSON FOODS, INC., et al,	)	
Defendants.	)	

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VOLUME II OF THE VIDEOTAPED

DEPOSITION OF ROGER OLSEN, PhD, produced as a witness on behalf of the Defendants in the above styled and numbered cause, taken on the 11th day of September, 2008, in the City of Tulsa, County of Tulsa, State of Oklahoma, before me, Lisa A. Steinmeyer, a Certified Shorthand Reporter, duly certified under and by virtue of the laws of the State of Oklahoma.

think related to the metals being mobilized with the organic carbon and staying in solution and not being attenuated.

So your question was how many of these are conservative. Potassium, TS, two, magnesium, three, most of the phosphorus, four, five, six, a little attenuation there. So in my opinion, there's five or six that are very conservative but not -- you can never say anything is an exact conservative element, and the rest of them, you know, have some attenuation but in my opinion not to affect the overall evaluation of their transport throughout the basin. 05:29PM 05:29PM

Q In fact, your principal component analysis assumes that they're all conservative, doesn't it? 05:29PM

A No.

Q Specifically how did you account for the differences in fate and transport via surface water pathways as compared, for instance, to groundwater pathways? 05:30PM

A I didn't have to in the principal component analysis. It gives me a chemical analysis at a particular spot, and if I still see the constituents and it has a particular score, then it's impacted. It can be certainly, as we talked about this 05:30PM

morning, diluted. It can be attenuated, but as long as they're still there, it doesn't matter. So it's a conservative, maybe considered conservative, but we're looking at individual samples and individual locations and see what we have there, so you don't have to account for the fate and transport. 05:30PM

Q Now, from what I've heard, your testimony primarily with Mr. George, to look at how this -- your poultry fingerprint primarily described on Figure 6.11-18C where you've drawn the two areas, you have cattle, edge of field samples that show up -- I know they're not on this chart but they show up within the poultry signature. You've got water, residence water wells that show up in the sewage signature. You've got Tahlequah samples where there's no poultry that show up as poultry impacted. Did it ever occur to you, Dr. Olsen, that the problem is not in the watershed, it is that your fingerprinting methodology is flawed? 05:31PM 05:31PM

A Those are anomalies that we try to explain, and there's always going to be some minor anomalies in my opinion. Those are minor for the hundreds and hundreds of samples that we have in the whole analysis. So I don't think the analysis is flawed at all. 05:32PM 05:32PM